

August 12 - Sept. 6, 1925;  
Rio de Janeiro, Brazil,  
and vicinity

#1 Ilha Paqueta, Aug. 19, ~~1925~~  
littoral

2 Nictheroy, Aug. 22, littoral

3 Ilha Paqueta, Aug. 23, "

4 Pedra da Itapuca, Nictheroy,  
Aug. 24, littoral.

~~5 São Francisco~~

6 Conto do Rio, Nictheroy,  
Aug. 26; littoral

7 ~~Up river~~ Ilha Governador,  
Aug. 27; up river.

8 Off Ilha Governador; Aug. 29;  
oyster dredge <sup>depth</sup> 6 meters.

9 Off <sup>boat</sup> Ilha Paqueta; Aug. 29;  
oyster dredge <sup>depth</sup> 6 meters.

10 Off Ilha Paqueta; Aug. 29;  
<sup>boat</sup> oyster dredge <sup>depth</sup> 4 meters

- 11 Off Ilha Paqueta, Aug. 29;  
boat dredge
- 12 Ilha Governador, Aug. Sept. 1,  
tide flats.
- ~~#12~~ ~~September 9 - Sept. 16,~~ <sup>1925</sup> at Santos  
Brazil
- #13 Ponta da Rio, opposite  
ferry, Santos estuary,  
Sept. 12, littoral
- #14 Collected on muddy, sandy  
beaches between canals  
#4 and 5 Santos estuary  
Sept 13.
- ~~September 18 - 26,~~ <sup>1925</sup> at Villa  
Bella, Ilha São Sebastião,  
Brazil.
- #15 South of Villa Bella, Sept. 19.  
littoral

16 ~~rd~~ Stony beach, south  
of ~~Hotel~~ Villa Bella, Sept. 20.  
~~Caracas~~

17 as in #16. Sept. 21.

17a Tow net haul, in front of  
Hotel ~~at Villa Bella~~ <sup>between</sup> 7:30  
p.m. (#6 net) Sept. 21

17 b. <sup>loblins</sup> ~~loblins~~ net dragged on bottom  
for amphipods, <sup>in front of hotel</sup> ~~between~~  
7:30 p.m. Sept. 21

17c Tow net haul in front of hotel  
9:45 p.m. (#6 net) Sept. 21.

~~#6a~~

18 Freshwater stream, south  
of town. Sept. 22 <sup>Rio Jaguanduba</sup>

- 19 ~~Freshwater stream~~ <sup>Co #18</sup> <sup>Rio Jaguanduba</sup>, north  
of ~~town~~. Sept. 23.
- 20 In front of hotel, Villa Bella  
Sept. 23.
- 21 ~~Freshwater~~ Co # 18 and 19, Sept 25.
- 22 Co ~~no~~ # 18, 19, 21, Sept. 26.
- 22"B Tow net haul in front of hotel,  
#9 p.m. surface, <sup>Tow over 3 feet</sup> <sup>of water</sup> Sept. 26.
- 22"C ditto 11 p.m.
- 22"D do 1 a.m.
- Oct. 2 <sup>3</sup> <sup>1925</sup> ~~at~~ <sup>at</sup> Paranaguá, Paraná, Brazil
23. Oct. 2, 1925, tide flat  
collections
- 24 do. Oct. 3.
- ~~at~~ <sup>#</sup> <sup>and vicinity</sup> Oct. 4-10; São Francisco  
do Sul, ~~Paraná~~, Brazil,  
<sup>Santa Catharina</sup>
25. ~~at~~ Praia Enseada, ~~at~~  
Oct. 6, littoral
- 26 Fresh water stream, at Ribeirão de  
Bananal, Oct. 6.



- 27 Ponta da Cruz, Oct. 7,  
littoral.
- 28 North end of Praia Enseada  
Oct. 8
- 29 Fresh water stream at Ribeirão  
de Bananal, Oct. 8.
30. Praia Utatuba in drainage  
ditches. Oct. 8
- Oct. 10-15, 1925<sup>#</sup>
- ~~31.~~ Rio Negro, Paraná, Brazil,  
and vicinity
- #31. Along banks of Rio Negro  
above ~~#~~ railway bridge Oct. 10
32. Along banks of Rio Negro, on  
mafra side, above ~~#~~ rail-  
way bridge, Oct. 11.
33. Fish ~~pot~~<sup>pot</sup> in river, Oct. 12.
- 34 Drainage ditches, Oct. 12.
- 35 Fish pot in river, Oct. 13.
- 36 Cast net collection, 7-8 p.m.  
in rapids above railway  
bridge, Oct. 14.

37. Fish pot in river Oct. 15

38 Fish pot in river Oct. 16.

~~##~~  
Oct. 17-20, <sup>1925</sup>Castro, Paraná,  
Brazil and vicinity

39. ~~River~~ <sup>Rio Iapo</sup>, near railway bridge  
Oct. 17.

40 At Hacienda Marumbry  
day's trip from Castro up  
Rio ~~Iapo~~ <sup>Iapo</sup> Oct. 18

41 Rio Iapo, above Instituto  
Chad Christ - Oct. 19.

42 Rio Iapo, near railway  
Bridge, Oct. 20.

~~43. do. <sup>##</sup> Oct. 21~~

Oct. 21 and 22, <sup>1925</sup>Rio Negro,  
Paraná, Brazil.

43. ~~Rio Negro~~ Along river,  
Oct. 21

44 ~~do~~ Fish pot, Oct. 22.

~~##~~

Oct. 28-31/1925<sup>5</sup> São Francisco  
Santa Catharina, Brazil.

45, Ponta da Cruz, Oct. 28,  
~~0~~ littoral.

46. do Oct. 29.

46 B. do Oct. 29.

47. do Oct. 29.

48 Drainage ditches along  
railway right of way.

Nov. ~~4~~<sup>4</sup> - 6. ~~São~~ Florianopolis,  
Santa Catharina, Brazil.

49. North end Praia da Jora,  
E. Nov. 5, littoral.

~~50~~ Nov. 10 - December 10<sup>1925</sup>, Montevideo  
Uruguay and vicinity.

50. Artificial lagoon in Prado  
(6 miles E.)

51 With steam hauler, 10 fathoms

Isle de Flores, Rio de la  
Plata, Nov. 13, 1925<sup>5</sup> otter trawl  
7 fathoms; mud

52. 7 miles ~~#~~ E.N.E. of <sup>otter trawl</sup> ~~dr.~~ hor. 13. 7½ fathoms, mud.
53. 5 miles ~~#~~ N.E. of otter trawl <sup>dr.</sup> hor. 13. otter trawl 7½ fathoms mud.
54. 4 miles ~~E~~ of <sup>otter trawl</sup> ~~8 fathoms~~ <sup>8 fathoms</sup> mud
55. 5 miles S. of ~~#~~ Isla Flores; <sup>otter trawl</sup> mud
56. Punta del Este, hor. 15, littoral
57. Otter trawl, off Isla Flores. hor. 16. 2 hauls, 5 fms., mud.
58. 13 miles S.E. of Pontón Paro, ~~#~~ Banco Inglés, <sup>dr.</sup> hor. 18, 7½ fathoms, mud.
59. 10 miles S. of Pontón Paro, Banco Inglés, <sup>hor. 18</sup> otter trawl. 7 fathoms
60. 15 miles S. of ditto. 8 fathoms mud.
61. E of ditto hor. 18, 8½ fathoms, mud



- 62 Punta Creta, <sup>Nov. 21,</sup> littoral.
63. 4 miles E. of Isla de Flores  
Nov. 24, <sup>otter haul</sup> 7 fathoms, mud.
- 64 6 miles N.E. of Isla de.  
8 fathoms. mud.
- 65 At Barro, <sup>de</sup> Santa Lucia  
Nov. 25, tide flat by boat  
~~boat dredge and shore house,~~  
~~collecting~~
66. dr. shore collections  
~~down stream~~ (down stream).
67. dr. from boat dredge  
hauls, 3-4 meters;  
mud ~~at~~
68. Banco Arquimedes  
Nov. 28, otter haul, 7 fathoms  
mud
69. dr. Nov. 28, dr 7½ fathoms
70. dr. dr dr.

71. ~~The~~ Small stream tributary  
to Arroyo Miguete, in  
Prado. Ilec. 1.

Ilec. ~~4-7~~ 4 and 5, <sup>1925;</sup> enroute  
to <sup>Puerto</sup> Sa Paloma, Uruguay.

72. ~~River~~ <sup>Ilec. 4</sup> River at San Carlos,  
tow net,

73. Crabs caught on baited  
fish line, river at San  
Carlos. Ilec. 5.

74. Rocha, ~~near~~ at hotel,  
Ilec. 5.

Ilec. 6-8, <sup>1925;</sup> at Puerto Sa  
Paloma, Uruguay.

75. Between hotel and light  
house, Ilec. 6, littoral

76. Tow net haul from pier  
near hotel, ~~Ilec. 6~~  
Ilec. 6, 9 p.m.

77. Tow net haul in surf on beach in front of hotel.  
Dec. 6, 9.45 p.m.
78. Far side of bay before hotel, Dec. ~~6~~ 17, littoral
79. West of light house, Dec. 7, littoral  
# 1925
- ~~80~~ Dec. 9 - 13, Montevideo Uruguay and vicinity.
80. Crayfishes from General Bazzano's place just outside of Montevideo, ~~Dec 10~~ <sup>Dec 10</sup>
81. Canasco Creek, ~~Nov~~ Dec. 11, <sup># 1925</sup>  
Dec. 13 - 28, Buenos Aires, Argentina  
(worked over museum collections)
82. ~~La Isla~~ Isla Flores, ~~Rio~~  
Tigre, Buenos Aires, Dec. 25.  
#



Dec. 1930

typewritten copy of these notes  
filed with Bacon Scholarship  
material in Expedition File.

United States

National Museum.

Bacon Scholarship.  
1925

Smithsonian

Institution

Stations 1-71

Waldo L. Schmitt

Book # 1. <sup>From</sup> Aug 1925 <sup>To</sup> Dec. 1.



James + Esther Bacon

Water sample 16 a<sup>2</sup> 1025 70°F

" " 18 = 1025  
shade at 70°F <sup>top of meniscus</sup> 1/20 height

La Mer/la Mer dans La Nature  
La Mer et L'Homme. / 40 francs

Par G. Clerc-Rampal/  
Préface de A. Berget

636 photo reprod.

10. Hors texte en couleurs

16 " en noir.

3/6 Cartes en noir of dess. 145

Paris - Librairie Larousse

~~JE Prater~~ ~~Capitan Argimon~~  
" Instituto de Pesca No. 1"  
ex "Diez" ex "Princess Royal"

Tons Bratos 284

" Red 97

Año de Construcción 1906.

Eslora 140 pies 42 metres 67

Maesa 23 " 7 " 01

Calado 12 " 3 " 66

86 N.H.P.

Construidos los Astilleros de A. Hall

Lda. Aberdeen

El Consultor Culinario por Pascal  
Acaba de Aparecer 5<sup>ta</sup> ed. \$1.00.

Friendships everything in this country  
especially Brazil (Old Spanish hold over  
medieval when there were only friends &  
enemies, & no law order or security)  
It pays to make as many as  
you can & keep them.

Dentist in Castro my tooth for  
landlady is a factor

James + Esther Bacon



Face on  
Bottom of  
Bag in  
(Hotel  
Globo.

TEMPERATURE RECORD.

#1

Instrument used,

Current number of observation,

Date,

Locality,

Bearings,

Time of day,

; of tide,

State of sky,

Temperature of air,

" surface of water,

" at depth of fathoms,

" of bottom,

Depth, in fathoms,

Nature of bottom,

Direction of surface current,

Force of surface current,

Direction of bottom current,

Force of bottom current,

Name of vessel,

To what service attached,

Name and rank of commanding officer,

Name and position of observer.

✓  
#1 Aug 19 - 1925  
REMARKS.  
Syllidia common  
everywhere but hard to  
catch.  
Xanthids everywhere  
two little Galathea  
like critters from, soft  
bluish star, the large  
dendy rayed one.  
amphipods washed from  
sea weeds. collected  
abroad id, one or two  
crinoids picked up on  
beach.

Callinectes from N. E  
section north of Brown  
place on warm sandy  
flats, shallow between  
boulders & along sea  
weed, on small  
Portulaca yellow brown  
from mud flats?

# TEMPERATURE RECORD.

✓  
#1 Instrument used,

Current number of observation.

Date Wed. 19, Aug. 1925

Locality, Ilha Paqueta, Bay of Rio

Bearings. de Janeiro

Time of day, 9 a.m. - 2 p.m. of tide + flooding

State of sky, Tide begins

Temperature of air, tidal flats

" surface of water,

" at depth of fathoms.

" of bottom,

Depth, in fathoms. Shore coll

Nature of bottom. Rocky, sand beaches

Direction of surface current, intervening, rocks

Force of surface current, fairly large,

Direction of bottom current, smaller ones in

Force of bottom current, one or two places

Name of vessel, This applies to most

To what service attached, of old, on west

Name and rank of commanding officer, side, going

Name and position of observer, road to north bank

where Depressure & Crinoids

were found

Joazeiro  
Rio de Rio  
REMARKS.

#2 Aug. 22 Rio de Janeiro  
Everything saved but  
small representation of  
life on rocks by Gouto  
de Rio. Didn't have time  
to collect more.

Small fishes from Rio  
a little stream running  
through sand & but  
not only had high water  
strongly cut off at low  
tide didn't seem to have  
any current, but I'll have  
to go back to look at it.

Crabs came from little  
pool bet. two large rocks  
as did most of the stuff  
worms, bryozoa etc.

Green algae all over  
rocks amphipods from there  
& bryozoa. Siphonaria everywhere  
I think I have several of  
largest; pool had a temp.  
23° Cent, or maybe a shade  
over water sample taken  
of pool. \*

## Brazil TEMPERATURE RECORD.

Instrument used,

Current number of observation,

Date, Aug 22, Sat. 1925

Locality,

Bearings,

Time of day, 9<sup>15</sup> A.M. of tide. Low tide

State of sky,

Temperature of air,

in pool foot tide 18 inch

surface of water, 3 feet long

at depth of fathoms,

of bottom, = 23° C.

Depth, in fathoms,

Nature of bottom, Sand beach bet. rocks

Direction of surface current,

Force of surface current, X

Direction of bottom current,

Force of bottom current,

Name of vessel,

To what service attached,

Name and rank of commanding officer,

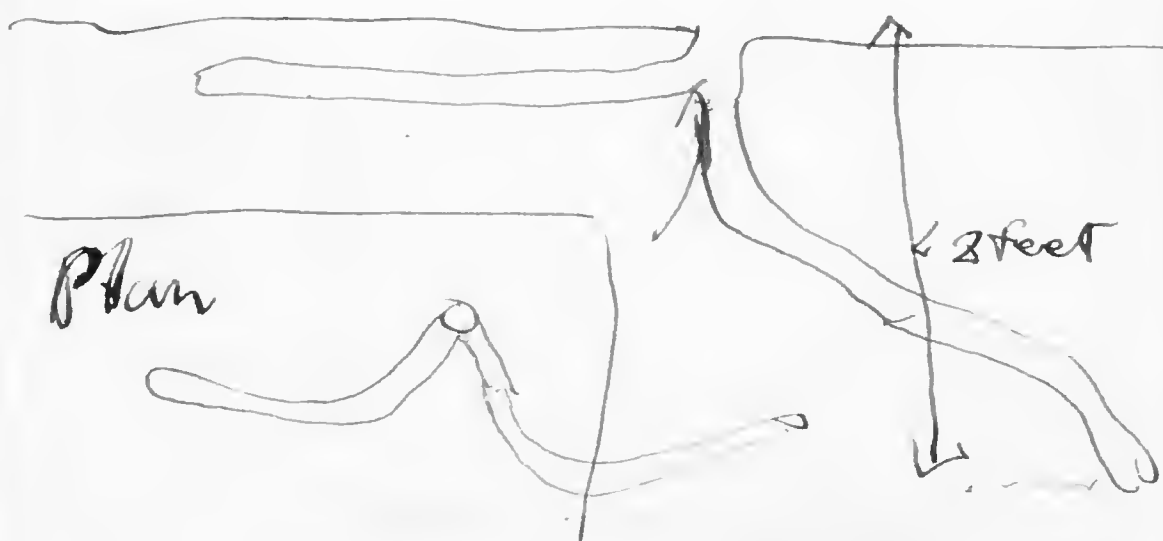
Name and position of observer,

a boy watching  
me pulled an  
Egiphia gonagra  
claw from rock  
crevice, same one  
in which pool  
was, but he  
failed to get  
crab.



REMARKS.

# 3 - Flugs in holes  
noticed in mud flat  
between large granite  
boulders on east side  
got a lot of small  
fiddlers, and three <sup>(1 shallow)</sup> <sup>only 2</sup> <sup>deep</sup>  
larger crabs latter  
went as deep down as  
2 feet. latter used  
shovel. just failed at  
getting a third of the 2  
larger ones, holes seemed  
about 2 inches in diameter.  
always had a lateral  
passage near the surface.



#3 TEMPERATURE RECORD.

Instrument used,

Current number of observation,

Date,

Locality,

Bearings,

Time of day, 2 p.m. ; of tide, low, about

State of sky, in turn in

Temperature of air,

" surface of water, 26 °C.

" at depth of fathoms,

" of bottom,

Depth, in fathoms,

Nature of bottom,

Direction of surface current,

Force of surface current,

Direction of bottom current,

Force of bottom current,

Name of vessel,

To what service attached,

Name and rank of commanding officer,

Name and position of observer,

Crab always came up near  
in haste + was readily caught  
with fingers.

## REMARKS.

# 4 Aug 24.

Unfortunately got over on Pedra da Itapuca, after tide had started rising and so was unable to get much other than small stuff.

Saw a large brown mottled Portunid but failed to get him. Current strong lot of sea weed, but short.

Scholiopsis a good one. The very scared one from rock let himself drift in strong current all buddled up.

## TEMPERATURE RECORD.

# 4

Instrument used,

Current number of observation,

Date,

Locality,

Bearings,

Time of day,

State of sky,

Temperature of air,

" surface of water,

" depth of

" of bottom,

Depth, in fathoms,

Nature of bottom,

Direction of surface current,

Force of surface current,

Direction of bottom current,

Force of bottom current,

Name of vessel,

To what service attached,

Name and rank of commanding officer,

Name and position of observer,

Pedra da Itapuca

#5. at 8:05 a.m. 25-9-05  
 Callenbach's account.  
 "Cirig" - guato  
 "puapa"  
 (locust) of which all  
 In morning + at night 4.30  
 as tide all night.  
 out in canoe, took 1 hr  
 2 and 1/2 hr. 1 hr. 1/2  
 yesterday 1500 fish with 1 line  
 "tair" has - muller  
 50 meters long  
 1 meter at end  
 8 in middle 24 min.  
 Jan sample of things  
 at this place  
 10.40 a.m. back at

Caprella must have been  
 on attached Gulf weed  
 literally by the hundreds.  
 Pieces of weed saved with  
 algae. were stuck to algae  
 by and

head canoe with 1 canoe (1000 sec)

#5 Aug. 25-25  
 TEMPERATURE RECORD.  
 1026 on Salinity with Nab.  
 Instrument used, Resecond Canell  
 Temp. 72°F 1026.3 26.6  
 Current number of observation. Temp. 71.19°F  
 (G.K.) Date, with B.F. 1024 to top of meniscus  
 2nd local. Locality, Temp. 22 2/3°C  
 Bearings, falling?  
 Time of day, start at; of tide. "Z" 11"  
 State of sky, Colombia 1/1  
 Temperature of air, Colombia side  
 " surface of water, 9.26. 23 1/2°C  
 " at depth of at surface on rock  
 " of bottom, by seine haul, 11.00 23 1/2°C  
 Depth, in fathoms, 11.00 23 1/2°C  
 Nature of bottom, H.I. # 3 = 6.8 3.0  
 Direction of surface current, 2  
 Force of surface current, 2  
 Direction of bottom current, 2  
 Force of bottom current, 2  
 Name of vessel, only by apt. boat  
 To what service attached, 2/3 1/2 C. 11.6  
 Name and rank of commanding officer.

Color of  
 Name and position of observer, 8.3 only  
 shade 11  
 time 11.00

2nd test = 8.4 done over



#6 Aug 26/1925

REMARKS.

Went over to get water sample in stream found it flowing abt on up stream side of bridge got a few fiddlers from holes in sand + some amphipods. Saved a sand sample to find out how salt it might be; also water sample.

There were some worms that looked like earth worms in it.

few fiddlers from same sand.

V

Aug. 26  
TEMPERATURE RECORD.

#6

Cmbr de Riv

Instrument used,

Current number of observation.

Date,

Locality,

Bearings,

Time of day,

; of tide.

State of sky,

Temperature of air,

" surface of water, 25 1/5

" at depth of fathoms.

water bottom. Sample B 3 - 4 in. depth  
depth

Depth, in fathoms,

Nature of bottom,

Direction of surface current,

Force of surface current,

Direction of bottom current,

Force of bottom current,

Name of vessel,

To what service attached,

Name and rank of commanding officer.

Name and position of observer.



## REMARKS.

#7 Aug. 27. Went up river on Governor head, shallow, muddy estuary big mud flats on either side, mangrove swamps full of crabs fiddlers etc. Large Callinectes in Creek. Had to meet Fisheries Society at 4 p.m. So could not put my specimens up. Hope to do so in a.m.

got lots of other debris + water sample.

No end of nudibranchs some paved, all over and through bryozoa + sponges among bryozoa on outside of lettuce only

## TEMPERATURE RECORD.

#7 Aug. 27.

Instrument used,

Current number of observation,

Date,

Locality,

Bearings,

Time of day, ; of tide.

State of sky,

Temperature of air,

" surface of water,

" at depth of

fathoms,

" of bottom,

Depth, in fathoms,

Nature of bottom,

Direction of surface current,

Force of surface current,

Direction of bottom current,

Force of bottom current,

Name of vessel,

To what service attached,

Name and rank of commanding officer,

Name and position of observer.

24.9.

2 1/2 feet.

✓ Aug. 29, 1927 11:30

REMARKS.

#8 oyster dredge

1 Saige de Tosa

6 meters { 1st Dredge  
= 3 fathoms. } Gobernador

Mud bottom shell  
fragments 100 meters  
off shore

2 amphipods, an  
ophurian, 2 starfish

lost tow net  
got loaded with  
mud.

Aug. 30 at  
Pedra with  
Orange + Green

TEMPERATURE RECORD.

Instrument used,

Current number of observation,

Date,

Locality,

Bearings,

Time of day, ; of tide,

State of sky,

Temperature of air,

" surface of water,

24° ?

" at depth of 0 fathoms,

" of bottom,

Depth, in fathoms,

Nature of bottom,

Direction of surface current,

Force of surface current,

Direction of bottom current,

Force of bottom current,

Name of vessel,

To what service attached,

Name and rank of commanding officer,

Name and position of observer,

✓  
 REMARKS *your lady*  
 #9 off Oague  
 12.00  
*from*  
 nearer from the  
 River but toward  
 landing stage  
 mud in lot  
 half of the dgo  
 sand in 4th  
 half / 1 little

Crab, starfish  
 + pag 1 aster  
 + keyhole  
 (1) under the line  
 20 m under

# TEMPERATURE RECORD.

*Ubirajara*

Instrument used.

Current number of observation.

Date.

Locality.

Bearings.

Time of day,

of tide.

State of sky,

Temperature of air,

"

surface of water,

"

at depth of

fathoms.

"

of bottom.

Depth, in fathoms.

Nature of bottom

Direction of surface current.

Force of surface current.

Direction of bottom current.

Force of bottom current.

Name of vessel.

To what service attached.

Name and rank of commanding officer.

Name and position of observer.

*name of 4th Indian*  
*helped the Portuguese*  
*when they first settled*  
*in Brazil.*

REMARKS.

~~#10~~ This can  
not made got  
sticks on bottom.

TEMPERATURE RECORD.

Instrument used,

Current number of observation,

Date,

Locality,

Bearings,

Time of day, ; of tide.

State of sky,

Temperature of air,

" surface of water,

" at depth of fathoms,

" of bottom,

Depth, in fathoms,

Nature of bottom,

Direction of surface current,

Force of surface current,

Direction of bottom current,

Force of bottom current,

Name of vessel,

To what service attached,

Name and rank of commanding officer.

Name and position of observer,



✓ Bar dredge  
 REMARKS. 2., 30 p.m.  
 # 10 Paqueta  
 4 meters deep  
 of road excavated  
 between  
 for red floor  
 near school.

many machines  
 2 star fish diff. species  
 sandy with shells

✓ TEMPERATURE RECORD.

Instrument used,  
 Current number of observation,  
 Date, ~~Sept 11 1891~~  
 Locality, ~~Paqueta~~  
 Bearings, ~~N 10° E~~  
 Time of day, ; of tide.  
 State of sky,  
 Temperature of air, 25°C.  
 " surface of water,  
 " at depth of fathoms,  
 " of bottom,  
 Depth, in fathoms,  
 Nature of bottom,  
 Direction of surface current,  
 Force of surface current,  
 Direction of bottom current,  
 Force of bottom current,  
 Name of vessel,  
 To what service attached,  
 Name and rank of commanding officer,  
 Name and position of observer,

✓ Boat ready 3 p.m.  
REMARKS.  
# 11 / 17 meters off  
End near  
Brid near  
road beach

few shell fragments  
soft blue  
black  
red  
red

✓  
TEMPERATURE RECORD.

Instrument used,

Current number of observation,

Date,

Locality,

Bearings,

Time of day, ; of tide,

State of sky,

Temperature of air

" surface of water,

" at depth of fathoms,

" of bottom,

Depth, in fathoms, 100 to 150

Nature of bottom, sand

Direction of surface current, 250

Force of surface current,

Direction of bottom current, 250 to 300

Force of bottom current, 1/2 mile

Name of vessel,

To what service attached,

Name and rank of commanding officer, Leal

Name and position of observer,

REMARKS.

Below bridge collection  
over mud flats. Under  
rocks + sponges plenty of  
latter several species  
yellow, one purple +  
white, encrusting with  
stubbled bygonia algae  
etc. tiny Xanthidia  
in crevices + cavities.  
got two small orange  
gray-bl. sponges + translucent white  
gray banded.  
shed claws right away  
heard more than I could  
find! collected bunch  
of sponges + debris for washing  
out amphipods.

11/11/11

✓

#12 below bridge  
TEMPERATURE RECORD.

Instrument used,

Current number of observation,

Date,

Locality,

Bearings,

Time of day,

State of sky,

Temperature of air,

" surface of water,

" at depth of fathoms,

" of bottom,

Depth, in fathoms,

Nature of bottom,

Direction of surface current,

Force of surface current,

Direction of bottom current,

Force of bottom current,

Name of vessel,

To what service attached,

Name and rank of commanding officer,

Name and position of observer,

in water  
Aug. Sept. 1.

Elha Gobernador.

still

10.07

run out  
of stream

24 1/3 °C.

water surface  
10 fms.

over 8 fms  
at bottom  
deep.

Presidente "Z 11" Estado Rio  
São Francisco

Snr. Victorino Teixeira

Gomes  
Victorino Teixeira Gomes  
50 meter <sup>sardine</sup> seine

Snr. Alexandre ~~Robze~~ <sup>Rozza</sup>  
Presidente "Z 1" Dist. Federal  
Ilha Governador

Charge of Fisheries. } President of  
entire  
Confederation

19  
30  
31  
66/97  
61  
Lucien Jovenne  
"Pendant vos vacances,  
pêchez au bord de la mer  
Prix 12 francs. (Coll. Baudry de  
Savniere; E. Flammarion, éditeur).

55 25 25 25

Macmillan & Co.  
D. 14  
Rochester  
C. F. Johnson  
New York



La Pêche et Les Poissons  
nouveau dictionnaire général des  
Pêches /par/ Henri de La Blanchère  
préface par Aug. Duméril.

Paris, Libraire Ch. Delagrave  
" 15, Rue Soufflot, 415  
has "silence".

mailler un filet.

---

Diccionario, ilustrado, descriptivo  
valorado etc. /por/  
Benigno Rodriguez Santamaria/  
Cabo de mar de puerto del.ª clase,  
Conservador de la Sección de Pesca del  
Museo Naval.

Madrid Artes Gráficas "Mateu"  
Paseo del Prado, 30  
1911

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Federico Schweizer

✓ Fiddlers creek.  
 #12 Olha Grenadier.  
 12 up river at  
 old creek culvert  
 water temp 31 + °C.  
 water sample

At rising tide  
 Ruined good picture  
 of hole in ground  
 by taking off back before  
 inserting slide. Got a  
 good representation of  
 fiddlers wh river where  
 I was the other day.

# TEMPERATURE RECORD.

Instrument used,

Current number of observation,

Date,

Locality,

Bearings,

Time of day, 12 noon of tide, just about

State of sky, shortly after sun

Temperature of air, running wh slowly

" surface of water, temp + 20 sample

" at depth of fathoms, taken off

" of bottom, old culvert

Depth, in fathoms,

Nature of bottom,

Direction of surface current,

Force of surface current,

Direction of bottom current,

Force of bottom current,

Name of vessel,

To what service attached,

Name and rank of commanding officer.

Name and position of observer.

#13 Sept. 12. 25

REMARKS.

Start at 9.50 AM  
going to beach in under time  
of 10 minutes. doz  
Pogonochora.  
Tide / Low at  
9.50 AM.  
Sandy running fine stone  
last night  
no harder since was  
sounded. Throwing went at 15  
get floating mounds  
Canoe 300 ft  
nets 12 x 1 with same dolls  
new net 1500 Grass  
220 - 230 am  
Ponta da Praia

Z-1, 300 odd fishermen  
Santa 9 colonies.  
Government price paid each day.  
No white shales yet

Miserable rainy day all down  
good pretty well damped  
Came in for but one net-hall  
And got a lot of Eudirogaphus?  
narrow body + One Palaemon  
my trees. I see 2 fine fish mounds  
by which way up in trees caught in last net  
knocked in can. water 1 1/2 feet deep around roots  
Large crabs at Rio. red + yellow said said water line  
readily dropped at night. Little ones climbed  
as we went after them.

All today's collecting in mangroves  
below and TEMPERATURE RECORD.

Except Fish, Callinectes + Portunids.  
Instrument used, Blue net + coara sandy

Current number of observation. Came in in fish fish-  
ermans net.

Date, Sept. 12  
Locality, Ponta da Praia  
Bearings, opposite below ferry

Time of day, 12.20 ; of tide, high but

State of sky, overcast, just turning out.

Temperature of air, 69°F

surface of water, 72°F

at depth of fathoms.

of bottom.

Depth, in fathoms, 1 foot

Nature of bottom, lead shells in sand

Direction of surface current,

Force of surface current, In swank where  
air does not stir

Direction of bottom current, temp 73°F at 12.05

Force of bottom current, water 71 1/2°F

Name of vessel,

To what service attached, #13a seine haul at

Name and rank of commanding officer, the Barro Santa, Brazil

Name and position of observer, Sept. 12, 1925

560 lb. fish in net few  
days ago mero

✓  
#14 Sept 13, 1925. REMARKS.

Collected on muddy sandy beaches  
between canals 4 & 5 Santo.  
Ad on mud flats about #5.

They shone got two little  
Urocybicus color of my tripod only much  
lighter. // on mud flats <sup>#5</sup> under rock  
found an eel, and number  
of Xanthids + graptoids  
+ Uca.

got a few ascidians attached to  
side of rock among worm tubes  
in shallow tide pool.

Saw a brownish alpheid in  
small pool under rock but failed  
to get it was darker than gelatin.

Boys got a few Ciris (Portunids)  
and number of hermits.

From Parsloe: Santo Fisheries ponds  
organized, <sup>Sept. 11, 1925</sup> price of fish high.  
Shrimps run from 4-10 \$000 per kilo & up  
as high as 20 in times of scarcity.  
Rice prices run from 2-3 - 7 lbs latter  
being the high figure. Fishermen are mostly  
poor & have only canoes, motor boats are 30-40  
M.R. per hr.

#### TEMPERATURE RECORD.

Instrument used,

Current number of observation.

Date,

Locality,

Bearings,

Time of day, ; of tide,

State of sky,

Temperature of air,

" surface of water,

" at depth of fathoms.

" of bottom.

Depth, in fathoms,

Nature of bottom,

Direction of surface current,

Force of surface current,

Direction of bottom current.

Force of bottom current.

Name of vessel,

To what service attached.

Name and rank of commanding officer.

Name and position of observer.




REMARKS. 1925

#15 Smith of Villa Bella

São Sebastião

Collected along beach to south  
Villa Bella, sea-weed washed  
for amphipods. One pc. of gulf weed  
attached had number of *Ephallus*  
*tuberculatus* forms + several shrimps.  
2 of about same size were blackish, maybe  
clown loach with white marks in middle of  
back, root + front + lateral margins  
whitish, dirty ( ) next to larger one  
red brown with white marks in middle of  
back; larger one root of dorsal under x  
fronts brown + whitish marks in middle  
of back. Brown root of gading into sage  
greenish distally, rest between largest +  
white pointed in color. but without white  
points. 5 tiny shrimps 2 with spines on  
carap. (1 = blackish bottle green, with last 3  
seg. of abdomen + tail fan dirty translucent  
hair brown. other = speckled sandy root of  
dial grey + clown horn spots mixed or color they  
would produce) || two with — root. = olive  
x unx yellow, || one with slenderest root.  
all over

all over  
transparent with  double stroke of  
olive yellow, mixed with little ochraceous on  
throat.  $\rho$ ; latter + tail gray ochraceous rufous  
with transparent, clear spot on base of letum  
as indicated.  $\text{11111}$  little hermit with sage  
green & olive markings spots, a narrow band with  
wide patches of dirty whitish tinged with same  
color, but just degree lighter than dark spots.

3 small spider crabs dark muddy green algal  
color like empty alga. ~~Algal~~ Pheuz.

Hazel eyes  
white belted  
dark jing  
legs cinnamon

Small hand similar  
TEMPERATURE RECORD.

bars of  
bluish spots  
on large head

Instrument used,

Current number of observation.

Date, \_\_\_\_\_

Locality,

## Bearings,

bertin blue with  
enough brick red  
spots to give at little  
distance heliotrope purple &  
china blue color

Time of day.

all, remove all day  
of tide. Collect in the morning

State of sky,

Cloudy, threatening rain

Temperature of air,

“ surface of water,

at depth of fathoms

of bottom,

Depth, in fathoms,

Leaving at 6.30

Nature of bottom,

Water at surf.  $71\frac{1}{2}^{\circ}$   
1.9

Direction of surface current,

an 67

Force of surface current,

air at 730 71° F

Direction of bottom current.

White, sample 2 saved

Force of bottom current

Name of vessel. *W. M.*

To what service attached

Name and rank of commanding officer

Name and position of observer: *rac sh (i) me*

The amphipods were luminous.

net dragged back & forth for  
3 3/4 hour water 10 p.m.

#6 xx nev. Bur. Shih.

1925  
#16. Sept. 20, collected  
on long beach, point  
beyond where we were yesterday  
north of. Got number of Crangons  
and one Upogebia

Pontonid chitin pale salmon buff legs palest  
of pale olive buff, ovaries + eggs mass showing  
through bright cadmium orange to orange not all solid one color  
alimentary tract in body sort of green-olive brown-black

Synalpheid pale buff pink with trace of  
vinous cinnamon mixed in edges of  
distal half of palm + all margins of fingers with  
fine line of bottle green, alimentary tract as in  
preceding.

Upogebia, now in dish mottled pea greenish underlaid  
with tinge of gallstone yellow  
just seg + telson without yellow, in body edgewise  
hands chelipeds pale ochraceous buff which was  
color when caught. under stone in crevices in  
gravel + sandy some mud, but mostly  
coarse gravel. Carapace also with yellow, chitin with  
yellow + green edges large + greenish mottling  
legs all white light

Crangon #A. Dist of glass bottle + huge green  
hands mottled with milky blue, sides with  
fines mottlings + blacker. legs sort of salmon buff  
ant. third of abdominal somites white, not  
sep. marked off, irregular line of white, same  
line of tail fan, throughout length of pale orange  
rostrum, 2nd + 3rd epimeron with black  
spot near hinder margin, flagella sort of cinnamon  
+ hair. from, which also seems to suggest tinge of  
body at times. in parts ventral hood white buff  
for black cornea white area narrow in front few  
mils very wide behind, half of last somite  
edge of tail pale tawny ochraceous to ochraceous

Crangon #B. Much like preceding but general  
color very dark black green like myrtle green, main  
though no blue shows in green (black bottle green) blue  
there are tinges of heliotropic purple in sides. epimeron  
which are mostly white but with noticeable, like the black  
part of indigo blue narrow margins. Tail fan  
all blue, black little white on margins, and 1/2 of abd.  
somites white making rather definite + conspicuous stripe  
as compared to black green which is faintly speckled with  
dirty yellowish white. black spot on 2 + 4th epimeron as  
in preceding. hairs of tail fan little red, paler center  
ventral hood white quite white around black cornea with  
tinge of lemon yellow rest dirty white grey. Tail fan beautiful  
mottled of blue

Chelipeds almost uniform (be like) bottle green  
a grey green as it were than bottle green

TEMPERATURE RECORD

Crangon #C abdominal carapace + ventral  
appendages oil green tail fan + flagella lighter  
hands darker = bottle green more, in fact color  
from hinder end gets darker forward to hands.

Telson of Crangon hand white distal half of lower  
margin + tips of fingers + small band tawny  
hands not speckled but body color is, is made  
up of mottled apple green, with sort of muddy fawn  
range? mottlings give? green effect. legs salmon.  
white whitish

Crangon #D Color very much like B. as a  
dark blackish green crangon but without white  
very little white scarcely any spot at base of  
tail fan, not black spots laterally, only whitel  
hood whitish, body mottled like preceding but  
effect darker like B. little blue no white  
red on distal half of tail fan gradually  
more in base

Petrolisthes distal joint at least of 2nd  
maxillipeds lighter ultramarine blue, hairs of  
same range

Depth, in fathoms.  
Nature of bottom.  
Time of day face of carapace = pale coral red x  
Direction of surface current.  
Force of surface current.  
Direction of bottom current.  
Force of bottom current.  
Name of vessel.

#16 Eupallium tuberculatum  
Name and rank of commanding officer.  
Name of observer.  
Name of vessel.

#16A Air 69°F water 71 1/2°F  
#16B Air 72 1/2°F water 71°F



✓ #17 same place as 16.  
 2 spec's <sup>REMARKS</sup> Sept. 21/25 #18 -  
 Orange same as one noted and #18 -  
 eggs ferruginous, carapace  
 12 more like than, <sup>stuffed all over green</sup>  
 slaty black <sup>abdomen</sup> (2) = grey black  
 blackish slate  
 dirty blackish white  
 = large of flaring  
 - slaty black  
 - white  
 - brownish black  
 point in distinct white  
 - white  
 - black with shiny indigo blue  
 - last one  
 - blind (3)

3 smaller greenish crabs  
 2 larger speckled generally  
 ferruginous in appearance

2 green clawed scudaphans like Salazian  
 large little green legs pinkish  
 large brownish. Eggs + alive  
 giving it an almost claret brown  
 appearance. (after time in dark looking Bay.)  
 1 with all green claws

1 Urocybia shed both claws.  
 Tail fans dark abd. red with color. abd.  
 translucent but above looks colored due to eggs.

#16 continued Hydrurus a Chironomus  
 legs, olive & olive green, dark  
 with white stripes down inner + outer  
 sides, tip of claw black, but just before  
 it spot of reddish end. orange. flagella red-  
 brown, dark part of dragon blood red. distal  
 antennula peduncle uniform. distal end of  
 last joint = azure blue?  
 Abdom. dark red and spines brown ground  
 color with spines? spots of yellow orange yellow.  
 flagella + peduncle uniform.

✓ #17 a Tow net haul  
 Sept. 21/25 near #6 xx



# TEMPERATURE RECORD.

on porch of hotel from  
 Instrument used, 7-7.30 p.m.

Current number of observation

#17 b. with bolbiniet  
 Date, dip net dragged  
 Locality, along at bottom  
 Bearings, 7.00 + 7.30 p.m.  
 Time of day, of tide.

#17 c 9.45 p.m.

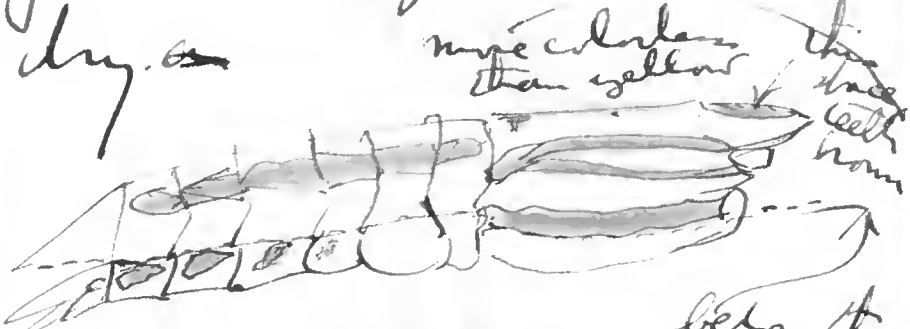
State of sky, still north wind  
 Temperature of air, surface of water,  
 like heeled staters  
 at depth of fathoms.  
 " but tide quite  
 or bottom.  
 Depth, in fathoms, low at about low  
 Nature of bottom, point.  
 Direction of surface current,  
 Force of surface current, must have been eff  
 Direction of bottom current, or other two  
 Force of bottom current.

#16 b. a second haul  
 Name of vessel, made at this time  
 Name and rank of commanding officer, I intended tried to  
 see if heuten Harvey could  
 Name and position of observer, find luminous again  
 in it

#18 Sept. 22, 1925.

Collected in stream for fresh water shrimps got several species, one of which with yellow mark. Climbed out of 8 or 10 little traveled 1 1/2 meters 1/2 across little gap across wood floor & through hole in wooden plank & 1/2 over dry clay tile under door & across granite flag walk in hot sun & was found on ground dead & belly dry.

Large chela like & similar to (last) purple in 3rd segment.



only lower lateral stripe in line = light carapace bright yellow & two submedian in abdomen. rest fainter yellow speckled with dark color. telson with just a fleck of yellow at base in new blade of fan with oblique yellow spot. sides with a line one next spine. Two last 4+5 abd segments with bright yellow on carapace black of midline. dark color = tinged with clear brown. lighter below dotted line = hazel transparent yellow = lemon yellow. tail fan = dark of dragon darker basally transparent. x = rider. x x = maroon purple. legs. dragon rest of blade = winey black blood red flagella colorless.

fine clear

James C. Remington  
Irradiant  
Plea green with a black line marking ant. margin of 1st, both margins of 2nd, & hind margin of 3rd abd. somite, other 2 somites behind edges of tail fan & telson margined with carapace with tracings of blue blue black green. Sides of fingers & articulating margins of joints range ochraceous as are hairs. Oct. ventral spines spines of chelae blackish brown under giving them darker appearance than rest of ground color. at depth of fathoms.

Acanthureus vertically red striped on carapace from irregular bands and of which bend forward at right angles to frontal margin red = maroon

Force of surface current, Direction of bottom current, Force of bottom current, Name of vessel, To what service attached, Name and rank of commanding officer, Name and position of observer, General color pale, Chelae pale pea greenish becoming sort of china bluish distally. articulations red (not) red of range ochraceous as in distal end of belly, fine lines at base of fingers, both with stock with red.

red shrimp called.



Sept. 22 - 1925 #18  
Water sample taken on high  
bank of Hotel. Low tide  
beginning of flood. Water 77 1/2° F.  
Air 76° F.

REMARKS

2. Red color on throat } madder brown  
tail due to partial }  
more mud condition } Chinese orange edge  
not seen in life } + yellow red line  
these 2 species } blueish  
fish

Chelipeds massive blue blackish  
 fluke & strength blue at articulation  
 lighter  
 bluish  
 lighter  
 a more  
 white  
 bluish  
 lighter

TEMPERATURE RECORD.

Instrument used.  
 Current number of observation.  
 Date.  
 Locality.  
 Bearings.  
 Time of day. at tide.  
 State of sky.  
 Temperature of air.  
 Surface of water.  
 at depth of fathoms.  
 Direction of surface current.  
 Force of surface current.  
 Direction of bottom current.  
 Force of bottom current.

are lot quite greenish with  
dark almost black little green  
streaks and green-black flae-  
masks on back of abd. =====  
=B (rare ~~to~~ micellaneus.

#20

Sept 24

Sept. 24-1925

#20

REMARKS.

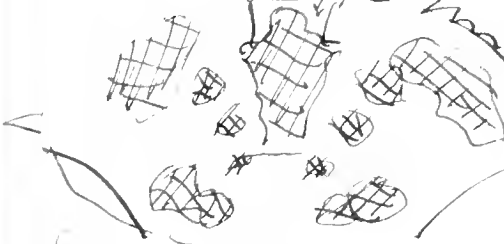
Portunid from beach

General color rest of range  
green x hair brown. with

Callinectes ornatus

- porcelain white

1/2 hair yellow


 1/2 white like toh  
+ front dragon  
blood red.

 Chelae largely same as general color  
of carapace, hair brown x greenish large  
spines nearly all porcelain white  
their hinder margin + ant margin of upper  
between teeth brown. inner face of  
hand + carpal articulation shiny blue  
faced under all white; movable one  
white


and red to scarlet.

China blue

stippled stronger distally

 Paddle legs like chelae margins of  
joints by articulations calmar, prox half  
of paddle + adjacent joint white  
distal half rest of row venous x gall  
dus yellow. transparent in case of white +  
yellow of paddle. Underparts whitish.

 Sept. 24-25 Thresher caught  
me 2 well developed others + ♀  
of same size + a Jamaican  
The two ♀ were of a general  
Vandyke brown color the one  
over laid with Bistre or olive.

 other speckled underneath with  
madder brown. These days  
color were general + mottled

TEMPERATURE RECORD.

 under all being a rest of day  
x cream buff color which showed  
through in hairy lines on carapace making  
it appear a little streaky especially  
on sides and on front + 3 d abds.

 extending down on sides along  
to top line of epimera. The  
lentic spec. had a blue, black  
(dark) green chelae, the other  
black brown + small chela, Vandyke  
brown legs + joint margin

 less transparent of joint suggestion of  
brown + blue spotting in bands  
of second + third prothorax brown.

 ♀? mine at depth of fathoms  
where miles of bottom almost white with  
few dark mottles of brown on under  
face large chela mottled with large  
patches of marine blue (light on  
inner + outer margins + fingers  
on a faint sea (bluish) green ground  
portions of 2 miles 1 + 3 behind  
deep green much darker than any  
other part of body + blackish

 The Jamaican has long stilt of  
margin blue black bottle green. Then  
of Buff red lower lateral carapace  
bright yellow mottled like rest of  
margin + stilt of 2 miles 1 + 3 behind  
yellow on 2 d + 3 d + 4 d + 5 d + 6 d + 7 d + 8 d + 9 d + 10 d  
length of body + stilt. Segs China  
blue mostly chela prisms purple  
light (or purplish) with tips of fingers +  
+ basal half of field are white at distal  
white inside at distal end of carapace + pro-  
thorax mottled with. Sages chela marine  
blue mottled out to whitish on inner  
and outer margin of palm carapace and  
short + distal part of merus. Telsonant

#21\* Sept 25-1925

REMARKS.  
Went back to stream to see if I could find young *jamaicensis* but things looked rather all after noon & in a.m. of 26 could make much out of lot. Got however 3 fair sized *jamaicensis* with black cross bands like one abn noted under #18. And one striped like one likewise had been offering reward for lost but w red-brown. hatched in nat. tank can be kept over have just recently shed & its blue-greenish ones with yellow stripes are about ready to shed. I would say w because an dying red-brown does get blue.

offer great jumps, can sing themselves almost a foot things like are 6-8 high & foot away. and walk as well as 4 footed animals.

\* = Rio Taguanduba =  
#22 Sept 26 - 1925

Went back to stream for *pligochaetes*. Soederwall has then still quite a number. Also, incidentally got seven shrimps, one cross banded *jamaicensis* like one under #18. *mallojamaicensis* I have seen which I think is the species. But what is the long banded ones? Two *acanthurus*, also smallest I think so far rostr + red stripes on carapace definitely identify it. Also an *Atya* with light stripe down middle.

And 3 characteristically speckled *altersii* with dark cross bands on hinder margins of first 3 abd. somites; darkest and most conspicuous band on hinder margin of 3d. with charac. clear transversely rectangular area in front of it.

Sept. 26-1925 #22  
Clear sunny day. Water temp in Rio Taguanduba where we collected. = 69.75°F

Instrument used,

Current number of observation.

Date: Water sample #22-A.

Locality: Out in pan of hotel surface, 1 ft. water.

Bearings: Time of day, 5.45 pm.

Air: 74°F. Temp in front of house = 78°F

Water: 74 1/2°F. Surface of water, at depth of 1 foot.

Just after turn of tide. Tide high just beginning to ebb.

Depth, in fathoms, 1.30 p.m.

Nature of bottom: H.I. = 8.4 on Clark prism.

Direction of surface current: Force of surface current.

Density: 1023.5 at 9 ft. of meniscus.

Force of bottom current: Temp. 72°F

Name of vessel: Capt. Wilhelm Theodor Meissner

To what service attached: Villa Bella, Ilha São Sebastião

Name and rank of commanding officer: Litoral do Est.

Name and position of observer: Crest of tide at 22°C. São Paulo

Ill. = Shr. Intermittent moon. Clouds.

Townethay at 4 p.m. 22°C. 11 p.m. 22°C. 1 a.m. 22°C. in front of hotel. 2 feet water surface tow.



#23 + #24 both Paranaguá, Brazil.  
Tide flat collection

REMARKS.

#23 Oct. 2, 1925  
Collected ~~very~~ Can ham  
of bonde of Paranaguá  
Got a few small ~~fish~~  
very small things they  
went all to pieces. The  
Crangons in the bottle with  
them are part of Oct. 3  
collection. which I have  
give #24 Oct. 3/25

Things its hardly with  
while to keep separate  
for want of bottles 3 amphipods  
are with little Pinnotheres  
for Villa Bella white paper  
take in my wish yes.

The young graptolids in both  
#s were from higher up on beach  
than the crabs in #23 well back  
in middle in almost dry land.  
The Portunids are only for #24  
Things are separate except for  
Crangons & Gelinas for #24  
which are with #23,

#23 Oct. 2 clear day for  
large clouds, sun.

TEMPERATURE RECORD.

#24 Oct. 3 Overcast, raining

Instrument used, ~~triple~~ in a room, cloudy  
Current number of observation, but clearing it  
Date, seems at 12 o'clock  
Locality, tide low at about  
Bearings, 8 o'clock in  
Time of day, of tide, later.

State of sky, #24 tide flats off  
Temperature of air, last pair to N. at  
" surface of water, Paranaguá rocks  
" at depth of fathoms, covered with lead  
" of bottom, + flat living system  
Depth, in fathoms, in sandy mud  
Nature of bottom, flats  
Direction of surface current,  
Force of surface current,

Paranaguá Brazil  
Force of bottom current, #23 + 24  
Name of vessel,

~~XXXXXXXXXXXX~~ Oct. 2 + 3

Got one broad 1925  
this afternoon as showed Uca  
looks picture of ship. flattened him  
out with tripod head. Shown  
same place as morning collection.  
But in afternoon 2:30 p.m. with high tide

Oct. 6 1925 9.15

REMARKS.

Arrived 12.30  
3 boys had a mangrove mill.

all opened up after leaving house at house

2:30 at  
after coffee of game

3:15 To Praia

Grande

at 5 p.m. started back to hotel about 10.30 with 3 other  
anyway, one at mangrove mill for  
shrimps + other prints + last for milk  
to eat. Praia da Enseada

# Oct. 6 - 1925.

"25." Air temp ~~67~~ 67 3/4 °F

Got a Lepidopa and 1 tiny  
Hippa on beach in front of  
German house facing light house.  
Before that ruler got 3 mollusks  
at the end,  
at house got some shells.

At Praia Grande got lot of  
hippas. Few quite large but  
not as large as natives claim  
they come.

And a few amphipods. Praia  
Grande is across two points of  
land behind house.

Sea was very rough + high due  
to high winds night before really  
should have made trip but in  
town didn't realize force of surf on  
outside of island.

# (26) Oct. 6. Children at  
mill got me 2 crabs +

TEMPERATURE RECORD.

several shrimps from stream  
back of mill. One shrimp

very quite brown in life looked  
like the black of Tricodactylus from

same of brown umbles,  
all over brown too.

The largest of the Tricodactylus  
was generally (only one alive  
near a.m.) a raw Vienna

dark brown in color due to  
spottings + mottlings blackish

+ mar brown, some on upper  
margin of all appendages, web

in large cheliped, on upper margin  
only; joints + narrow leg, but

in case of legs extend back on  
upper hinder face of joints

except in distal end of carpus

carpus + ischium + tibia almost all  
blackish, however, nearly uniform

raw umbles little lighter on

lower margin eye stalks spotted  
with red brown mottlings above

more of brown a maroon color  
than what I said above especially  
in eye stalks

The shrimp show color of  
dorm, on casual examination  
of dead specimens next  
day.

São Francisco do Sul  
Santa Catarina



Oct 8, 1925 #s 28, 29, 30

Left at 3:30

arrived at mill  
#28) Op. 32 beach  
at beach

head of canal  
Canal 11.

Air 72 1/2 3:50 p.m.  
Water 71 High tide

Prain da Enseada  
28 water sample; Arthropods  
#28 molt from rocks at begin  
of Prain { #28 Density = 1025  
to top meniscus. Temp. 78°F  
facing lighthouse.  
São Francisco, São Catharina, Brazil.

#29 at mill again  
Collected myself one fish  
got another up shrimps & eggs  
were very rare. Perspective view  
in way to Prain like long road  
São Francisco, São Catharina, Brazil.  
Some eggs brought to me by  
Fern Concomi

Prain Utatuba  
water from Ribeirão  
TEMPERATURE RECORD.

#30 Oct. 8, 1925  
Instrument used drainage  
from ditch near Prain  
Current number of observation facing Air House  
Date, São Francisco, S. Catharina  
#31 = Oct 10  
fish and mollusks  
and fish insects

Time of day  
#31 = Oct 10  
State of sky  
Oct 10 (I) 61°F Air.  
7:50 a.m. in my hotel  
surface of water  
under sill sky overcast  
bottom  
In spring = 61°F  
Depth in bottom  
Nature of bottom  
Direction of surface current  
Force of surface current  
Direction of bottom current  
Force of bottom current  
On window sill in shade  
bright sun at 12 noon  
Name of vessel

To what service attached  
Oct 10 Collected along  
Name and rank of commanding officer.  
banks of Rio Negro, above R.R.  
Bridge. Here boat of Hotel  
Zornig is tied. Got insects  
and. I Conceição did not even  
get a fish on hook line though  
we ran many.  
#31



Used small birge net.

#32

made lower part in

Oct. 10

REMARKS.

Sunday

small shrimp in tank

Collected along left bank of Rio Negro, on Napra, Sta. Catharina side of river, entering above R.R. bridge. More insects & a turned lamb; died latter for small shrimp in tank where I fished. Later in way back to hotel dug into a termite nest, found sand & clay mound and got a few specimens for Sept. It's not the stuff he wants but it may be of use to him. Collected up a few but small stumps & collected under of ants present were mostly two species of ants in some stumps; have bottled lots for each stuff all together (not separate)

In afternoon collected in holes in brick yard from which days had been dug.

2 o'clock tells me they are flooded during high water in the rainy season. Spent hour fish get over there, where I have may be three or larger this afternoon I managed to catch many. 2 net & several tadpoles.

TEMPERATURE RECORD.

Time of day, 12; of tide. Oct. 11 Monday #33

Put out fish-trap last night. Hauled it about 8 o'clock this a.m. Male Temp. 66 along shore Rio Negro, Parana side

Nature of bottom. Female that carried young had both antennal flagella & one st. dila. dactyls pale turquoise blue beneath, first pair blue too. Carapace dark, black bottle green. Head half of fingers dark brown. legs more or less green above; black black abdomen shading out to roof of sea green in second middle, blue in third. flagella black blue carapace. On hump between clay & ochraceous color whitish in ventral joints of legs & base of telson blue in first & black in posterior dactyls. Saw two joints of 3rd max. top blue.

Second specimen with only one claw. 1st & 2nd joints, white 1st & 2nd joints long & slender blue beneath. abdomen all blue beneath. telson brown, margin

Oct. 12 (#33) cold

REMARKS.

Abdomen card + abdomen much alike  
Bottle x myrtle green + some brown  
sides + on rest.  
Spide then up by one leg + the fly  
dead all spread out.

Just got spec. instead of blue he  
flum purple stand of blue above +  
royal in under parts. stem  
and letion practically white with  
faint traces of purple.

articulating membranes coral red  
Carapace black of hite with  
yellow under in high parts. hands  
Indian purple. max part of exoskeleton  
rest of buff color. fingers distally  
prune purple. Zornig says he has  
seen quite red ones.

Oct. 12 (#34) collector  
with dip net through Ben

Zornig's garden + some  
got out few fish + small tadpoles  
took films by photographs. Took at  
Zornig's wonderful garden. Visited museum at  
Convento fine little place + some rarities. Brazil  
is so little known, that you never can tell what  
will turn up. Birds, mammals + stone implements  
UUU got about a dozen different  
sizes of seeds to know for carbon  
Any fine collection of our guests. Pictures of man  
with Bee Temperger. Stuffed of mounted star of Mexico.  
has living in Rio Negro.

Oct. 13 #35

Color still  
recognizable  
Feb. 27, 1940

TEMPERATURE RECORD.

Fish pot: Carapace +  
Abdomen of Aegea dark  
Instrument used.  
Current number of observation.  
Suggestion of Panot green?  
membrane bet. abd + some  
maroon + lower brown.

Locality.  
Says marine or indigo blue  
Bearings.  
Curpus of helter grass green  
little on distal portion of ~~exoskeleton~~ <sup>membrane</sup> proximally  
time of day. of tide  
like inside of hands are dirty cream

uff. State of sky.  
Temperature of air. Palms grass green  
fingers. lepidote like legs; right side  
surface of water.  
tending distally near tips into  
at depth of fathoms.

royal purple; Under parts  
of bottom.  
dirty cream buff. max faintly with  
blue. + legs + ant 2 or 1 abd quite  
faintly with green + purple like front  
nature of bottom.  
daged carter eggs with prase legs

Direction of surface current.  
Spinous whitish or cone tipped.  
Force of surface current.  
Direction of bottom current.  
Force of bottom current.

~~7-8 p.m. Cast net.~~  
To what service attached.  
Name and rank of commanding officer.  
#36 Oct. 14/1925  
at ~~trati~~ <sup>trati</sup> rapids above R.R.  
bridge at Rio Negro, Guyana.

#36 Oct. 14/25

In other notes in bagged net  
not here.

#37

Oct. 14

REMARKS.

Air 58° F

Rio Negro by fish pots near bank.

in water 64° F. 1 foot deep

3 4 Aegean in fish pot  
 1 smaller one further along  
 all over green; legs flushed with  
 purple dusky fingers too.  
 legs purple dusky quite auricular  
 under parts purple feet lighter than body.  
 with dark spots  
 2nd Sm. of the class quite blue  
 ampous both dark olive  
 green  
 fingers + into half of palm  
 of one ad. dusky tips  
 pencil blue of other  
 sea green  
 short + several under tumour  
 int. epidermis like red  
 harts + hands + dactyls  
 green blue one hand + mouth  
 + legs + let. + ant. + transverse  
 blue below just quite white  
 must live in crevices, he freezes  
 when picked up is hard + spread  
 2nd effect when you try to lift then  
 not a little from end just. Rear  
 quite strongly.

#36 Aegean dark <sup>plumbeous</sup> little green on back  
 + abd. legs whitish + palms bright green  
 green whitish dactyls buff - ~~caudal~~ buff.  
 fingers tipped + edged with the buff. hairs  
 at margins of joints and artic. with mentum  
 dragons blood red. Under parts + let. +  
 + last 3 abd. white (these went under all  
 plumes buff. more illu. for.  
 this new cast net. Oct. 14 night.

Oct. 15 Got 1/2 dozen A.

#37

one had young  
 one had peculiar swelling  
 under abd. what is it  
 was used, feeding and stuff attached  
 to roots of a super sea plant with  
 #38 (first of observation) it was cast this a.m.

Oct. 16 Boy went down + got  
 3 A. brought me 3 A.

These yesterday all three were unpaired  
 live with tank of live green, very dark  
 small over just little muddy + greyish in  
 nature lines dark under hair

Temperature of air  
 fingers of hands  
 margins with orange  
 shape dark purple light  
 clear sort of flushing  
 maxillary finger one spot  
 at articulation. Dactyls distal half  
 salmon red + orange chroma light. Flashed  
 at beginning green basal half; larger  
 spec. blackish central portion of stem  
 - ends of cerata white? let. + abd. +  
 folded under and, under side of propodeum  
 carpal + into side of hands +  
 maxillary chromian green. Under  
 parts green all but white antennae  
 like black antennae little brown grey  
 the joint day in, not of impression.  
 Can right themselves very readily  
 leaving yellowish little mes. piece  
 when taken by key not so big as  
 #39



Oct. 17 Cleared rheumatism  
 of Aegean. 9.30 a.m. Air. 72  
 water 66  
 2 doz Aegean from stream  
 1 dozen Palundais nothing for  
 not.

Called on Gifford as afternoon

#40

## REMARKS.

Oct. 18 Sunday  
By Hacienda Marunby  
with Werner hiked to rest.  
got couple dozen aegleas  
number of insect larvae  
Air. 68 water 70?

#41 1980

Oct. 19 Monday with  
midships to rapids  
beyond Smith's to about  
30 mins in rain return.  
got 9 aegleas.  
Air 67 water 69°F

Get weather Bureau data

#42 Tuesday

got about 2 doz more  
Aegleas a few as  
large as any I've seen  
but still smaller than the  
folks here claim they grow.  
2 ♂♂ 1 ♀ out in S. elipmental got  
quite larger. 1 male near large size  
not as much as 1/4 in shorter in arm.  
1 ♂ + 1 ♀ small to show size diff if any.

Oct. 20

Black Book

3.000

White

5.000

+ chalk

1.800

TEMPERATURE RECORD.

Fish pot

2.000

Dentist

Instrument used.

10.000

Auto to dentist + Dinner

9.000

Current number of observation.

Wednesday 22 (43) 2 Aegleas  
Rio Negro first lot left  
Bearings.

Thursday 22 (44) 2 Aegleas  
Time of day, ; of tide.  
in Rio Negro, got one  
State of sky,

one less than 1 large  
Aegleas surface of water, largest one  
yet seen at depth of fathoms.  
of bottom,

Depth, in fathoms.

Nature of bottom.

Direction of surface current.

Force of surface current.

Direction of bottom current.

rides + less white  
Dutand strikes with  
half of  
shimmering + at  
some level  
in current

belongs to #45 tiny pontonid in  
name of vessel.

name of species. Long striped with  
crimson x puffy red (mostly crimson)

To what service attached.  
Name and rank of commanding officer.

four stripes two parallel on back  
at middle of carapace, at black green  
spot mandible, leaving and part of

carapace, haust. + colorless snuff for jet black  
eyes which look like crabs, lateral stripes  
on over carapace + abdomen up + on to lots of

angular pedicels, all stripes with glass =  
+ having crumpled white spots arranged in  
Latin. Chelera red at white not at white





#46 (29th) Oct. } Ponta da Cruz  
 REMARKS. } Sta Catharina

Combined with 45  
 Temp air at 12 noon 71 1/3  
 water in evening tide 71.

Good lot more Gebias  
 Can stand very stagnant  
 water in which all crabs died  
 naturally in pockets & rocks where  
 they live must be one very fresh  
 in course of tide.

Found 4 small red shrimps <sup>stomach of one</sup>  
 crabs lying against mud <sup>bright apple green</sup>  
 wall of tube. The red is quite <sup>say almost</sup>  
 intense glossy red. & the lateral stripe <sup>emerald</sup>  
 across the epimeron in the strongest  
 & most conspicuous.

There were several green <sup>next to the blue</sup>  
 I have color noted one. Bands the dark  
 of bottle green pea green speckled.  
 finger tips & a little along cutting edge  
 ochraceous, hairs fringing bottom & lateral  
 flagella where they attain & surface fine  
 same color. Conspicuous black <sup>above</sup>  
 post. 3 fourth of abd. <sup>containing in mouth</sup>  
 little & large red green on a <sup>dark blue</sup>  
 porcelain whitish ground but not deep ground  
 Only in case of cara & abd. unlike chelae <sup>dark</sup>  
 is in cheeks & white in ground. Post margin of  
 bottom & tail fine white thin just before the bands  
 of blue (faint) then bottle green.

Of the tiny fiddler crabs only  
 saw 2 or three holes got  
 1 male & female.

also found within Smagrua 3 spec.

Of the Urogebiae the abd. of  
 most is bright or prominent  
 orange <sup>TEMPERATURE RECORD</sup>  
 legs white, chelae with flesh &  
 buff pink or vinaceous pink.

Other legs of a few white; legs  
 mostly transparent, stomach  
 showing particularly on sides,  
 bet. plate & indigo, many have  
 carapace & central third of median  
 dorsum of abd a sort of slate gray.

Not noticeable in field as in  
 white plate after some hrs.

hairs on fore part of carapace dirty  
 cream buff.

Got one at depth of fathoms  
 of bottom.

Shrimps with tortoiseshell sort =  
 46 B mostly transparent.

most conspicuous thing was  
 apple green stomach above which  
 carapace has colorless brown  
 which & on sides were faint red  
 or orange tints, above with  
 scattering of red spots, eyes blue black  
 legs blue like water mill. Chelipeds  
 a maybe maxillipeds, among the heavy  
 antenae limbs with darker red & some faint  
 blue spots below distal margin of antenae.

Penultimate joint red (dark)  
 General red flecks = fleshy  
 dark red = fleshy with dark  
 blue spots = azure about  
 a cobalt.

This shrimp is  
 like all found  
 in Burrows.  
 some oranges  
 in crack or under

General red flecks = fleshy  
 dark red = fleshy with dark  
 blue spots = azure about  
 a cobalt.

This shrimp is  
 like all found  
 in Burrows.  
 some oranges  
 in crack or under

## REMARKS.

# 47 Oct, 30  
 Hens back & collected  
 in rain.

got fiddlers out  
 of sand near shear  
 just one little place

Shrimp of large delta  
 white, outer side of palm  
 + carpus + some little  
 distally flushed with  
 ochraceous, in some other  
 about lemon yellow, which  
 is color of legs; back slaty  
 + green mottled.

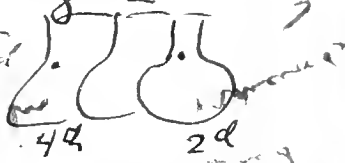
\* note above on Green Crangon

Black spots as indicated

on 2nd & 4th epimeris

near hinder margin

before articulation



# 48

## TEMPERATURE RECORD.

large day before  
 Oct. 1 ship sailed  
 in San Francisco

Instrument used,

Current number of observation

Date,

+ R. R. Dutcher

Locality,

Bearings,

Fisher man E.W.

Time of day,

State of sky,

Temperature of air,

surface of water,

at depth of,

Depth, in fathoms,

Nature of bottom,

Direction of surface current,

Force of surface current,

Direction of bottom current,

Force of bottom current,

Name of vessel,

To what service attached,

Name and rank of commanding officer,

Name and position of observer,

not tide, wind  
 Defmatt went with me. He  
 picked up lot of stuff I had  
 gotten before, but I saved it  
 as I hated to throw it away.



Thurs day Nov. 5 { Quiet day }  
 #49. REMARKS: ~~Very dry~~

Collected at rocky point  
 at end of Praia da Dora  
 toward bridge but mostly  
 on rocks at end of  
 Praia / 8:30 a.m.

Air. 71° F  
 Water sample Water. 71½° F.  
 Tide nearly at just before slack.

3 Palaemon ran four in  
 shallow water about rocks.  
 over sand water about a  
 foot deep; just happened  
 to see them moving and I picked  
 up crabs. Did not see apparently  
 before sand bottom.

1 of Palaemon was in sea  
 weed with amphipods, when I  
 scratched up weeds he backed  
 out & picked him + other two with net.  
 Amphipods thick in ulva. *Sagittaria*  
*Platycodon*

Two amphipods one in road home from  
 Praia, other among leaves of trash  
 above rocks.

In way back collected graptoids on sides  
 of sewer? small stream into which tide  
 flows. got lot all sizes

Palaemon fainter kind of trans  
 laryng ~~stria~~ <sup>TEMPERATURE RECORD.</sup> under margin  
 of abd. somites, with end of ventral

Instrument used ~~Hand~~ <sup>mixed with</sup>  
 Current number of observation. ~~laryng stria~~ <sup>embryo of faint lines</sup>  
 Date ~~raw~~ <sup>under across</sup> 12-1-17 on 3 d  
 Locality ~~chrom~~ <sup>yellow</sup> ~~spots~~ <sup>with</sup> ~~ferre~~  
 Bearings, ~~intermed~~ <sup>all over</sup> ~~margin~~ <sup>with color</sup> ~~of tide~~ <sup>near Dunder</sup>  
 Time of day. ~~margin~~ <sup>margin</sup>

State of sky. ~~back of ventral teeth + carapace~~  
 with dark lines as shown one  
 under eye extends along anten-  
 nular peduncle. Tail also  
 margin with color like abd  
 somites + carapace stripes

Depth in fathoms. ~~Surface of water.~~  
 Nature of bottom. ~~at depth of~~ <sup>fathoms</sup> ~~margin~~ <sup>margin</sup>  
 Direction of surface current. ~~Force of surface current.~~  
 Direction of bottom current. ~~Force of bottom current.~~  
 Name of vessel, ~~To what service attached.~~

Name and rank of commanding officer. ~~Name and position of observer.~~  
 Name and position of observer. ~~Name and position of observer.~~

Lost a nice vial of ascidians,  
 + though I went back just before  
 dinner, and looked high + low  
 couldn't find it.

#50

Nov. 12 - 25.

REMARKS.

Prado with F. F.  
a.m. 4 F. K. fish  
water too muddy + high  
for Azules.

Shear = Arroyo #2 Bode  
Miguelete

Volto Vuelto

Bamachs = Lapas.  
from Lepas?

#### TEMPERATURE RECORD.

Instrument used,

Current number of observation.

Date,

Locality,

Bearings.

Time of day, , of tide.

State of sky,

Temperature of air,

" surface of water,

" at depth of fathoms.

" of bottom.

Depth, in fathoms.

Nature of bottom.

Direction of surface current,

Force of surface current,

Direction of bottom current,

Force of bottom current.

Name of vessel,

To what service attached.

Name and rank of commanding officer.

Name and position of observer.

✓ About hundred miles on way to Malden.

County is like Kansas prairies flat & undulating but very nice & green & thick flat well watered; trees appear in clumps & may have been just have been planted. People the common people seem more upland than run of Brazilians or I'd imagine it.

Felipe is a son of what died he say 18 years <sup>with 18</sup> dead? Old sea capt was out has bridge & house Day hot as blazes.

Boys & many men run around all day with long lines dusters of muck & ~~stick~~ duck.

Grapoids under rocks & #56 hr. 16, 25 continued in seaweed & mostly in water or where there was water. tide pools etc.

Sydgia common under rocks some very large ones among them, got only one or two poor specimens

### TEMPERATURE RECORD.

Instrument used,

Current number of observation.

Date,

Locality,

Bearings,

Time of day,

of tide.

State of sky,

Temperature of air,

" surface of water,

" at depth of fathoms.

" of bottom.

Depth, in fathoms,

Nature of bottom,

Direction of surface current.

Force of surface current,

Direction of bottom current.

Force of bottom current.

Name of vessel,

To what service attached.

Name and rank of commanding officer

Name and position of observer.

Nov. 13 Friday

REMARKS

#51 5.35 - 5.50 a.m.

#51 (= #1 Instituto de Pesca)

2 small crabs one with  
madder brown eyes  
1 isopod + several Pasiphaea

1 isopod Isopod

2 crabs 1♂ 1♀

5 Pasiphaea Pasiphaea

1 Xiphopenaeus Xiphopenaeus

1 Peneus setiferus

Peneus setiferus 5  
species

51 } Crustaceos

52 } all combined  
53 } number of Pasiphaea

54 } Chimaerae large  
shells in stomachs  
saved some

Callorhynchus callorhynchus L.  
Gronovius for Gm.  
"Gallo-Quimera" 1754

# #51. TEMPERATURE RECORD.

Instrument used, C thermometer on ship.

Current number of observation. #1.

Date, Nov. 13 1925

Locality, 2. Isla de Flores

Bearings, (Approx 6 millas)  
Approximately

Time of day, , of tide,

State of sky,

Temperature of air, 19°5

" surface of water, 19°5

" at depth of 7 fathoms, 19°5

" of bottom,

Depth, in fathoms, 7

Nature of bottom, barro (mud).

Direction of surface current, \

Force of surface current,

Direction of bottom current,

Force of bottom current,

Name of vessel,

To what service attached,

Name and rank of commanding officer,

Name and position of observer,

Color of water green



REMARKS.

✓  
*Pacific catfish*  
*Corvina*  
*Forch*  
*(mid hill man)*

Pacific Cat

*Carine m.*  
*lateral*  
*bones of mandibles*  
*in spots. little*  
*distally*



Chimaera

*At. 2.00 p.m.*

*A.I. (8.15)*

*Sample of water saved*

#52 = (#2 Inst. to 100)  
 TEMPERATURE RECORD.  
 Nov. 13, 1925

Instrument used,

Current number of observation,

Date,

Locality,

Bearings, *E. N.E. Isla de Flores*  
*(prose 7 myllas)*

Time of day, *9 a.m.*; of tide,

State of sky,

Temperature of air, *22° 0*

" surface of water,

" at depth of fathoms,

" of bottom, *19.5*

Depth, in fathoms, *7 1/2 brazas*

Nature of bottom, *barro.*

Direction of surface current,

Force of surface current,

Direction of bottom current,

Force of bottom current,

Name of vessel,

To what service attached,

Name and rank of commanding officer

Name and position of observer,

*Water saved.*

#54

#4

## REMARKS.

Sta 3.

E. Isla de Flores (about 4 mi.)

8 fms. land

Air 26° Water 20° 5  
Verde.#55  
Sta 5 (#55) 7S. of Isla Flores  
about 5 miles  
landAir 26 Water 20°  
Verde 2 P.M.#55 Density 1006.51  
Temp. 70.5 or 6°

#53 = #3,

## TEMPERATURE RECORD.

Nov. 13, 1925

Instrument used,

Current number of observation,

Date,

Locality, N. E. Isla Flores  
Bearings, (Approx. 5 millas)

Time of day, 11 ; of tide,

State of sky, Cloudy

Temperature of air, 24°

" surface of water,

" at depth of fathoms,

" of bottom, 19° 75'

Depth, in fathoms, 7 1/2 brasas

Nature of bottom, hard

Direction of surface current,

Force of surface current,

Direction of bottom current,

Force of bottom current,

Name of vessel,

To what service attached,

Name and rank of commanding officer,

Name and position of observer,

Wataola Verde

#56 Nov. 15, 1925 #56 Excursion Train

REMARKS. To M...  
 Hotel fueled to take me at  
 4 us I asked called me at 25  
 I + I had at most of my jacket  
 to star. F. Came by in taxi at 5 to 6  
 on way train just then changed over to  
 a very crowded one; these people hold seats  
 right + left + it's hard to get an unoccupied  
 one. Ex. all girls it seems but very few  
 good looking ones look like Irish in a picnic  
 Don't know when the train starts but these seem  
 to be two sections standing on the tracks.  
 Such a jumble, & I can't understand a word  
 right or left. Car we are on sort of  
 buffet car four folding seats opposed or  
 dining? It is in side of most of buffet  
 is behind a little counter. I thin ones.

The young people are walking up + down outside  
 walking in the car. Skirts aren't so short as  
 in Brazil.  
 A priest with black hat accompanied by a Dominican  
 had green ribbon in hat. Every body at least all  
 women clapped hands when he went by + then  
 smiled + nodded to women right + left of him.  
 The men black men are common here as in Brazil  
 In the end of being told get cash on my head instead  
 of hat. Glad I dressed + took my old clothes +  
 shoes along. The wouldn't have let me aboard  
 the train. This is a regular Sunday excursion  
 in very sense of the word.

There is a special Catholic excursion on, two  
 + girls have tied green ribbons around  
 head. No note in paper about arrangements  
 for today. Arrived Nov. 15, 11 a.m.

To auto to town. 30¢ each, walked  
 to Burnett's for a ride. auto much cheaper for  
 a ride with 4 + 5 ea. higher than next  
 one. Tried here + again but no again  
 finally asked police man outside of  
 church + told us. 1 - sum of 100 per  
 head + return + two hr. stop. Punta del  
 Este looks like a good place, + we will go  
 back for Fri. Sat. + Sunday of this week  
 got a few things. ~~Charles~~ ~~W. Smith~~

#56 Punta del Este #56

Instrument used.  
 Got a few amphipods of other sort  
 spent on me. Density 1014.00  
 Temp. 70.5 or 6.  
 Came back to church. Service going  
 on fine. most people filed in.  
 F. wanted drinks we went across park for  
 upstream Uruguay club was dancing. back  
 in park fellow was speaking. other than  
 utter mutters. (Could not by any pictures)  
 but unlike Rio Negro most came in  
 auto + some dunes house with thick  
 thatch. (Can almost tell part of  
 country by percentage of horse this.)  
 Sighted at Punta del Este = maldonado right.  
 inner got a bump + I took today left in  
 case of rain.

David Curanta when I told him I was  
 not going to be in town for water complex  
 at about 3.33. tide just after turn  
 turn well marked. Broke thermometer

old but not he had learned English in  
 last three months + that I was sure  
 H. M. Smith had written he knew no Eng.  
 but said why he doesn't know  
 now. Good of his story + when you write it  
 on hair del. would play in zeal, crowded  
 in dishes. ~~Don't~~ ~~say~~ ~~rain~~ was due  
 to start back at six hour's started  
 yet at 7 p.m. Beer 50¢ Boy 20¢  
 go back to 50¢ Auto 60¢ the 30¢  
 but 10 - would not  
 myself.

# 57 Nov. 16, 1925

REMARKS.

Ret'd to hotel from Maldonado at 11<sup>30</sup> left again at 12<sup>30</sup> on trawler. Net was put over in a.m. but I was sleeping soundly. At hotel night before I only slept from 200 to 735 didn't wake me till 25 min. & for I am thankful I did not sleep night before I had everything before I went to bed. I made me miss a couple of good times hauls in a.m.

Very large haul of this about 3 times what I saw on Friday. Saved 1/2 doz. Callinectes fish.

Little blue Crown + Pescadilla.

# 57 morning hauls 3 a.m. 9 a.m.

Second good haul only 1/3 size of first but 2 1/2 m. inside one night after the water couple raised bottom five arms reach muddy. = 5 fms. H.I. about 9 a.m. = Ph. 8.4 good test. contents speckled shrimps? = fishes, water crabs. Pescadilla, small squid + Pamplico = Pseudosquilla Corvina = shells.

# 57 Density 70.5 or 6 1011.1  
Pescadilla = Moray  
= 29 cm. long.

TEMPERATURE RECORD.

Instrument used. Moray had 1 big Pescadilla inside 29 cm. long.

Date. Small flat shark saved had shrimp inside.

Pescadilla same Tremolera let me the gut then rebar with Penicillin in season.

Corvina eat shells like rat fish.

Palometa eat shrimp.

Skate worms of which a few fragments were saved.

# 57 Applies to last haul

Direction of surface current.

When I hauled Chimaera and ice (out of box parked in ice)

in one of large was found two pieces of what I thought was

skin and mouth, though measure of bands like a lining of mouth

had roughness of the dorsal of white fish had thrown it to one side later when I got to bottom of box realized what I saw another in ice

that they were parasitic worms. When alive were thin translucent (= translucent) bright

opaque marks made me think of pictures of glass larvae & cells.



#58 <sup>should be 1815</sup> Nov 17 1925  
 Nov 18.15 REMARKS S.E. Ponto Pato  
 Banco Inglés  
 7 a.m. 7 1/2 fms. 13 min  
 mud Density 1012.10  
 70.5  
 Air 20° Water 20.25  
 water green.  
 = Sta #1 of Inst. Peco for the day

A.I. = 8.8. 530-6

Tow net haul yielded many  
 Ctenophores, invertebrates with  
 haul. From large shark took  
 two isopods from  
 saved few fish. hinder dorsal fin  
 P.C. of July Cymarian came  
 up with ~~bag~~

#59 Cut open number of doz  
 got 1 small ~~fish~~ + 1 young dogfish of good  
 size. 2 got two crabs found 2 square  
 out of another  
 2 spots of crab legs out of  
 another.

saved Corvina stomach full of  
 eggs.  
 P.C. Bryozoa 1st/1st/other boards

#59 Pescadilla ~~fish~~ have much  
 of anything today  
 ditto sting ray 1st  
 sea 2nd

#59 = (#2) Nov 18 1925  
 9 a.m. S. Ponto Pato Banco Inglés  
 (Approx 10 millas, 7 fms. mud bot.)  
 Air 20° Water 20.25  
 TEMPERATURE RECORD.

#60 (= #3) 1 p.m.  
 S. Ponto Pato Banco Inglés  
 (Approx 15 millas) 8 fms.  
 Air 21° Temp. <sup>barro</sup> water 20.25

#61 (#4) ~~crust~~  
 F. Ponto Pato Banco Inglés.  
 8 1/2 brazas barro  
 Air 21° surface of water. Water 20.5.  
 Verde at depth of 6 fathoms.  
 of bottom.

Got two Corvina Megala  
 one at first haul out  
 2 1/2 feet long at last  
 haul 4 feet long.

Larger spotted sharks  
 had much digested fish frags  
 in stomach, of longer fish in  
 all but one. On none were  
 fragments recognizable.  
 lots of holly on way back to  
 Monterey.

# 62. Punta Cameta  
REMARKS.  
Nov. 21, 1925  
4.30 p.m. few crabs &  
amphipods & isopods.

head ~~in~~ in terms  
of length yellow lab.  
large eye 7 gill rakers  
~~as above~~  
~~as above~~

# 63 - NOV. 24, 1925 H.I. 8.41  
5 45 - 6.30 a.m. Toward  
already in ~~101309~~ sample  
light Density 101309 Temp. 77.5

Shark 4  $\frac{3}{4}$  long  
1st gill slit  $\frac{5}{8}$  from throat  
beginning of pectoral nearly  $\frac{7}{8}$   
beginning of dorsal  $\frac{3}{5}$   
upper lobe short  
fins 1 +  $\frac{1}{2}$  +  $\frac{1}{3}$  +  $\frac{1}{10}$   
only one little dorsal  
anal gills black of head  
white below

# 63 (#1)  
Nov 24 / 1925  
TEMPERATURE RECORD.  
hwa site  
E. Isla de Flores  
Instrument used,  
Current number of observation,  
Date,   
site hwar 4 mill.  
Locality, hwar  
Bearings, hwar  
air 190 water 200.  
Time of day,   
of tide.  
State of sky,

Temperature of air, (#2)  
 surface of water, 2  
 " at depth of fathoms,  
 1925.  
 " of bottom,  
 Nature of bottom, mure  
 Direction of surface current, N. E. Isla de Flores  
 Force of surface current, 6 millas  
 Direction of bottom current, E. S. E. Brazos  
 Force of bottom current, 2 millas  
 Name of vessel, San Juan  
 To what service attached, 2005  
 Name and rank of commanding officer, Verde

Put oyster dredge twice at con-  
clusion of other haul. Put over oyster  
dredge in 7 fms. for 2, 4 10-15 min  
hauls. got very soft mud, worm tubes &  
clams, 1 shrimp (*Liphopeneus*).

#65 REMARKS. Nov. 25 - 1925  
 Water Temp. 22.5 C. Density 1.000.05  
 11.35 a.m. Temp. 64°F 3.53 p.m.

3.53 one crab from bridge abutment  
 #66 about rocks + roots of grasses 5 p.m.  
 #67 few amphipods.  
 Nov. 25, 25 = #67 1st haul day  
 Made about 4 boat dredge hauls in river channel below bridge all same sort of stuff, 2nd haul, 1st haul net was empty, it had a couple of branches of dead trees juncrouted with barnacles of which we raised a few sticks. one of the hauls had a number of flat graptolites in them. The depth was bet 3-4 meters. Water was very turbid + bottom was soft black ooze.

Banco Santa  
 #67 Succa Uruguay  
 Manuel Fernandez  
 Nov. 27 Thomas brought me in a few eglea + amphipods  
 Instrument used.

Current number of observation.  
 #68 (on draw 1.)  
 Date Nov. 28, 1925  
 Locality Just de Lexa 1.  
 Bearings Made four net haul 4.55-5.10 a.m.  
 Time 7 o'clock  
 Time of day, of tide  
 Banco Arquimedes  
 State of sky, 7 Brazas, brt = banco  
 Temperature of air, Air 17° water 18° 5'  
 surface of water, water color = banco  
 of bottom.

#69 (2) 9 a.m. Nov. 28, 1925  
 Banco Arquimedes  
 Nature of bottom, 7 1/2 Brazas brt = banco  
 Direction of surface current, Air 17° water 18° 5'  
 Force of surface current, water color banco  
 Direction of bottom current, Got many a pumpkins  
 Nature of bottom current.

#70 (3) 11 a.m. Nov. 28, 1925  
 To what service attached, 7 1/2 Brazas brt = banco  
 Name and rank of commanding officer, Banco Arquimedes  
 Name and position of observer, Air 18° water 18° 5'  
 water color banco  
 # very muddy.  
 Very rough day  
 very sick part.

#71

~~Dec.~~

## REMARKS.

Dec. 1st. 1925

In little tributary to  
 Anzo's Miguelete in  
 the Prado. Tried to catch  
 big Aeglea with hook net  
 + meat but caught only  
 a little one, main stream  
 very muddy. Tributary  
 clear + very shallow.

Temp. of main stream 28.5°

got about 3,000 bottles nearly  
 full all sizes from medium  
 to small but large ones in  
 they are said to give Ditch's  
 find.

Went with Tremoleras.  
 Aeglea thick under grass +  
 debris in water especially plentiful  
 probably due to luncheon, meat  
 remains thrown in stream  
 by picnics.

## TEMPERATURE RECORD.

Instrument used,

Current number of observation.

Date,

Locality,

Bearings,

Time of day,

of tide.

State of sky,

Temperature of air,

" surface of water.

" at depth of fathoms.

" of bottom.

Depth, in fathoms,

Nature of bottom,

Direction of surface current,

Force of surface current,

Direction of bottom current,

Force of bottom current,

Name of vessel,

To what service attached,

Name and rank of commanding officer.

Name and position of observer.



## REMARKS.

## TEMPERATURE RECORD.

Instrument used,

Current number of observation,

Date,

Locality,

Bearings,

Time of day, ; of tide.

State of sky,

Temperature of air,

“ surface of water,

“ at depth of fathoms.

“ of bottom.

Depth, in fathoms,

Nature of bottom,

Direction of surface current,

Force of surface current,

Direction of bottom current,

Force of bottom current.

Name of vessel,

To what service attached,

Name and rank of commanding officer.

Name and position of observer,

REMARKS.

TEMPERATURE RECORD.

Instrument used,

Current number of observation.

Date,

Locality,

Bearings,

Time of day,                      of tide.

State of sky,

Temperature of air,

“                      surface of water,

“                      at depth of                      fathoms.

“                      of bottom,

Depth, in fathoms,

Nature of bottom,

Direction of surface current,

Force of surface current,

Direction of bottom current,

Force of bottom current,

Name of vessel,

To what service attached,

Name and rank of commanding officer,

Name and position of observer,

✓  
 REMARKS.  
 Two largest grapsoids from  
 Olha Govenador Aug 27, 25  
 backs a slaty black with  
 cinereous markings and  
 lavender gray patches  
 branching region where  
 thighs of hinder legs fold  
 over their eye stalks and  
 legs what I would call  
 a mahogany red with black  
 brown spots (meri)  
 of all but last two pairs  
 of legs with whitish spots  
 maybe pearl gray. Red is  
 almost crimson x range from  
 shading off in bases of palps  
 to saturation red to primrose  
 yellow to nearly white



red, saturated  
 ← primrose yellow (white distally)

Turned down part  
 bet. eye stalks real dark  
 deep red like eye stalks.  
 Propodi of walking legs sort  
 of ochre yellow as is  
 all joints of legs of 3 mulls  
 laury except meri which are

color of back this is more  
 umber than in large spec 5  
 2 after meri, not last two  
 with more white patches  
 than in large specimen  
 Chelipeds colored same  
 as is large ones. Under  
 parts yellowish like  
 hands. which color  
 runs over to prox half  
 of under side of meri  
 of walking legs & entire  
 under side of chelipeds

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[illegible]

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 V. G. 2. No. 17  
 1867/1868

Kurt Faber: Rund um  
die Erde

One heavy g (12 left gloves on)  
for grabbing cracks under  
water & under rocks  
Canvas bucket  
2 at least

Drugs to fill sieves twice  
versa

chest <sup>+ net</sup> <sup>-1</sup> 8 y <sup>110 gal. drum</sup>  
of 2; 8 gal. tanks <sup>low line</sup>  
herb against wall  
Boots, photo, 2 m. p.  
+ few other rollers  
standard to go with  
tanks. no net one?  
only with.

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